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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/863,261 | 05/24/2001 | Ikuya Arai | HIT 2 690-08 | 9568 |

24956 7590 01/28/2003

MATTINGLY, STANGER & MALUR, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER

NGUYEN, CHANH DUY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2675

DATE MAILED: 01/28/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/863,261 | ARAI ET AL | |
| | Examiner | Art Unit | |
| | Chanh Nguyen | 2675 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16,17,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-17 and 20-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The preliminary amendment filed on December 19, 2002 has been entered and considered by examiner.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 16-17 and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by McDaniel et al (U.S. Patent No. 4,415,985; hereinafter briefly referred to as McDaniel).

As to claim 16, McDaniel discloses a display apparatus (all elements shown in Figure 1 including CRT 64) which displays an image based on a video signal from an external computer (e.g., central processor 52) which is connected to an input device (e.g., keyboard 66). The computer (52) of McDaniel has a processor (90) which can perform I/O read and I/O write memory (or read data information from/write data information to memory); see column 3, lines 43-60 and column 4, lines 1-8; column 14, lines 6-35.

McDaniel teaches a receiving/transmitting unit (60, 62) which receives a first control signal from a computer (52 or 90) (e.g., interrupted signal) generated in response to a controls instructing inputted through input means and a second control signal (i.e. ALE signal has S0, S1, S2 representing read I/O, write I/O, read memory, write memory) (see column 14, lines 6-35, column 16, lines 37-45 and, lines 61-68). The address latch control signal (ALE) represents the signal for instructing read and write operation as shown in column 14, lines 21-35. Then McDaniel teaches that "the address transceivers 100a and b are used to transmits the address from the processor module 52 to other modules within a system" (see column 16, lines 38-41). Thus, the address latch enable (ALE) should be received by other modules (or interface circuit) such as modules (60, 62).

McDaniel teaches that "the READY signal is generated in response to the acknowledge signals generated by the other module. One skilled in the art will realize that when any processor initiates a memory read or write cycles (i.e. first control signal as claimed) , I/O or interrupt operation (i.e. second control signal as claimed), the processor may enter a wait state until a READY signal is received" (see column 16, lines 8-14). Thus, once the ALE signal is received by other modules (or interface circuit 60, 62) directly as previously discussed above (or indirectly through the request/grant logic 404 described in column 14, lines 46-58), the module (or interface circuit 62) transmits the acknowledge signal to the computer for proceeding the operation of reading/writing or interruption".

McDaniel teaches the display apparatus (all element shown in Figure 1 including CRT 64) including a memory (RAM 112) stores data regarding the display apparatus (see column 4, lines 12-19).

McDaniel clearly teaches a control signal (address latch signal ALE) including an instruction for reading out data from the memory (see column 14, lines 21-35). It is clear that the processor (90) of McDaniel would provide a program to generate a control signal because it is so well-known in the art that the microprocessor having a program in a software to instruct the microprocessor carrying out a specific task. For example, examiner cites the reference of Floyd (Digital Fundamentals) to teach a microprocessor generating control signal by a program in a software(instruction decode and control).

As to claim 20, this claim differs from claim 22 in that the terms "a receiver" and "a transmitter" are additionally recited. These term read on the peripheral circuits (60 and 62) as previously discussed with respect to claim 18 above.

As to dependent claims 17 and 21, these claim are met by McDaniel. For example, McDaniel teaches keyboard (66) as recited in claim 21. The claimed "software" is analyzed as previously discussed with respect to claim 16 above.

Response to Arguments

3. Applicant's arguments with respect to claims 16-17 and 20-21 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment claim 18 and new claim 20, the new ground rejection is applied.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanh Nguyen whose telephone number is (703) 308-6603.

If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Steven Saras can be reached at 305-9720.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA, Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

cm
C. Nguyen
January 26, 2003

Chanh Nguyen
CHANH NGUYEN
PRIMARY EXAMINER